December
2001

Grand Junction Office

Perspective

Long-Awaited Site Transition Finalized

Volume 9

GJO Shares Its Success Stories

Donna Bergman-Tabbert
DOE–GJO Manager

In the wake of the tragic event of September 11, we at the U.S. Department of Energy Grand Junction Office (DOE–GJO) feel very lucky to be able to continue our work with only a few increased security measures.

In this issue of the *Perspective*, we bring you news of several recent success stories for GJO. Our cover depicts the site transition process that is at long-last official. Last December, former Secretary of Energy Bill Richardson made an unprecedented visit to DOE–GJO for a ceremonial land transfer. Before a crowd of 180, Richardson and former Riverview Technology Corporation Chair Knute Knudson signed a Memorandum of Understanding to transfer ownership of the GJO site from DOE to the Grand Junction community. Compared with Richardson's visit, the official site transfer effective October 1 was much more informal. Nonetheless, we are pleased to have this transition complete. Please read the article on site transition beginning on page 3 for all the details.

Also effective October 1, DOE–GJO now reports to the DOE Idaho Operations Office. Only one more major transition to go—awarding a new Technical Assistance Contract for the site. Requests for Proposal were accepted through August 15, 2001. DOE anticipates

Continued on page 12

Cover (counterclockwise from upper right): Transition of the U.S. Department of Energy Grand Junction Office (DOE–GJO) facility to a private entity, the Riverview Technology Corporation, was achieved on October 1, 2001. This log house was present on the site when it was purchased in 1943 by the U.S. War Department to begin a uranium procurement program for the Manhattan Engineer District and is still in use today for offices; the U.S. Atomic Energy Commission constructed and operated two pilot plants (only one is shown) at the site in the 1950s to test experimental uranium ore refining and milling processes; DOE–GJO entrance; DOE–GJO staff members and contractor support personnel; present-day site; Donna Bergman-Tabbert, DOE–GJO Manager (seated left) and former Secretary of Energy Bill Richardson (seated right) presented the formal offer of the site to the Riverview Technology Corporation Chair Knute Knudson (seated center) on December 4, 2000; and a building on the site now occupied by the Small Business Incubator Program.

Inside This Issue

Grand Junction Office Perspective

The ***Grand Junction Office Perspective*** is published by the U.S. Department of Energy Grand Junction Office, 2597 B¾ Road, Grand Junction, Colorado.

Coordinator
Wendee Ryan

Contributors
Ed Cotter
Michael Hart
Richard Johnson
Lisa Sharp
Michelle Smith
Lynn Pavelka-Zarkesh

Technical Communications and Visual Technology
Marilynne Gossett
Phyllis Price

Inquiries
Audrey Berry, Public Affairs Specialist
U.S. Department of Energy Grand Junction Office
2597 B¾ Road, Grand Junction, CO 81503
Phone (970) 248–7727 • Fax (970) 248–6023

You can visit the GJO website at gjo.doe.gov

Long-Awaited Site Transition Finalized

More than 4 years after the U.S. Department of Energy (DOE) Headquarters issued a plan to reduce the Department's mortgage liability across its complex, the DOE Grand Junction Office (GJO) site officially transferred to private ownership effective October 1, 2001.

On September 19, 2001, DOE signed a quitclaim deed providing title to approximately 46 acres at the DOE–GJO site to the Riverview Technology Corporation. "This has been a long and involved process and we are happy to finally see it come to a productive end," said Donna Bergman-Tabbert, DOE–GJO Manager.

Participants in the transfer of the U.S. Department of Energy (DOE) Grand Junction Office facility to the Riverview Technology Corporation were (left to right) Sue Ottman, closing agent with Meridian Land Title L.L.C.; Daniel Wilson, attorney for the City of Grand Junction; Chris Launer, representing the Riverview Technology Corporation; Donna Bergman-Tabbert, Manager, DOE Grand Junction Office; and Cooper Wayman, attorney, DOE Grand Junction Office.

The Riverview Technology Corporation began as the Joint Utilization Commission in October 1997 as an informal community task force to work with DOE on redevelopment opportunities for the Grand Junction site. The commission formally incorporated in summer 1999 to become the nonprofit Riverview Technology Corporation. The corporation is sanctioned by the City of Grand Junction and Mesa County and has an 11-member board of directors consisting of civic and business leaders.

GJO Remedial Action Project

The GJO Remedial Action Project was established to decontaminate the GJO site, including soil, buildings, surface water, and groundwater. All exterior land areas at the GJO site have been remediated and released for unrestricted use. Seventeen buildings that were either unusable or not economical to remediate were demolished. All remaining DOE–GJO buildings and structures have been radiologically surveyed and released for unrestricted use.

One of the early issues associated with the site transfer was the small amount of residual radioactivity contained in Building 20, the GJO Analytical Chemistry Laboratory, a building with economic and mission-essential values. To address this issue, a working group was assembled beginning in August 1999 with representatives from several levels of DOE, U.S. Environmental Protection Agency, State of Colorado, City of Grand Junction, Mesa County, and various contractors to develop property-specific, free-release criteria for Building 20. The building was then evaluated against these criteria.

The working group agreed to a 25 millirem per year (mrem/yr) total effective dose-equivalent criterion for free release. This means that the exposure that could be received by a worker or member of the public from any area in Building 20 must be less that 25 mrem/yr for the building to be released for unrestricted use. Three documents were prepared to provide input to the final release decision. These documents derived the levels of residual radioactivity that would have to exist in the

Continued on page 9

Radiological contamination in Building 7A necessitated demolition of the structure before the adjoining decontaminated building could be transferred to the U.S. Army Reserve. The demolished building had formerly been used for ore processing and sample preparation.

GJO Remedial Action Project Closed Out

Demolition of Buildings 7A and 18 at the U.S. Department of Energy Grand Junction Office (DOE–GJO) site essentially closed out the GJO Remedial Action Project.

Building 7A

Demolition of Building 7A was the last major project scheduled to be performed under the GJO Remedial Action Project at the DOE–GJO facility. Building 7A was the former sample preparation facility used by the GJO Analytical Chemistry Laboratory. The building was contaminated during former ore-processing activities at the site and through continued use to prepare samples for analyses. Building 7A was planned to be demolished as part of the transfer of Building 7 (to which 7A was attached) to the U.S. Army Reserve. Building 7A was ready to be demolished after a new sample preparation facility was constructed and operational in Building 46.

Work began at the end of February and, with an aggressive schedule, the demolition project was completed in mid-August. GJO Remedial Action Project management developed an innovative approach for demolishing Building 7A that changed it from a labor-intensive project to one that used large demolition equipment. “The new approach enhanced worker safety, reduced the potential of exposure to the workers, and improved the overall schedule for the project,” said Dick Johnson, GJO Remedial Action Project Senior Engineer for contractor *WASTREN, Inc*.

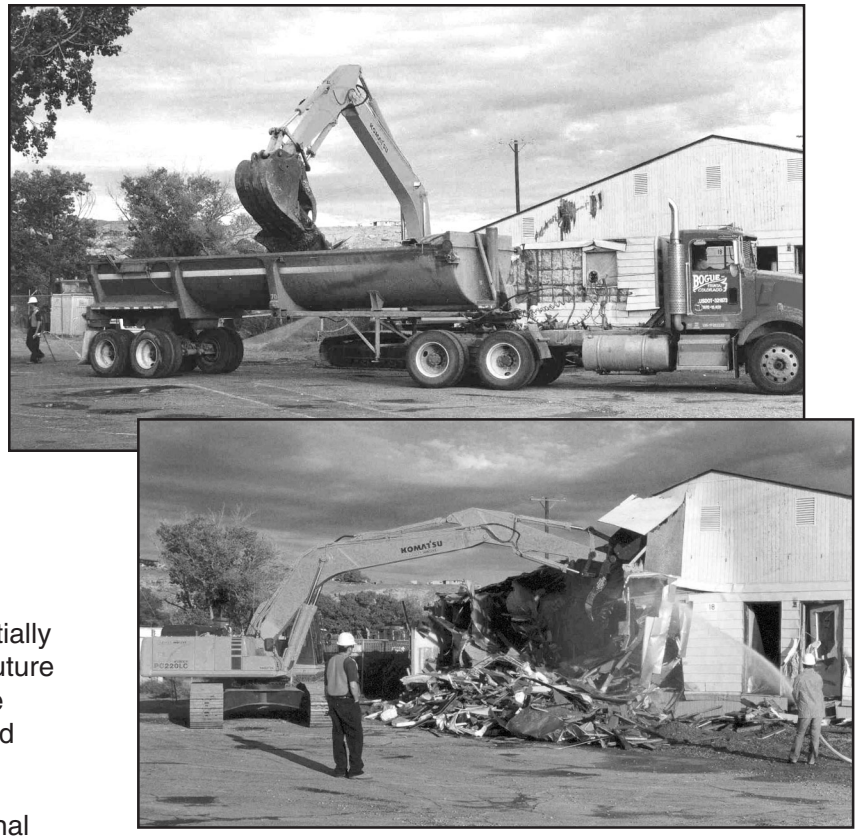
WASTREN self-performed the Building 7A asbestos abatement activities, which included removal of 5,200 square feet of radiologically contaminated asbestos-containing “transite” panels. The demolition project also included the demolition of the fanhouse and baghouse (Building 62) next to Building 7A, a large electrical transformer pad and vault, and the radiologically contaminated portion of the common wall between Buildings 7 and 7A (Building 7 west wall). The fanhouse was a large, continuous exhaust system that pulled a vacuum on all sample processing equipment, thereby minimizing the potential of any airborne contamination from the equipment. The baghouse was a filtration unit that removed any particles from the exhaust air before it was discharged to the atmosphere.

Because the U.S. Army Reserve currently occupies Building 7, precautions were taken to minimize inconveniences to the occupants and to ensure that no airborne contamination migrated into the Army Reserve area during demolition activities. All debris and excess equipment were stockpiled in the on-site containment area and hauled to the Grand Junction (Cheney) Disposal Cell near Grand Junction in June and July. Radiological verification, reconstruction of the Building 7 west wall to U.S. Army Reserve specifications, and project site restoration were completed in August.

The Long-Term Surveillance and Maintenance Program, managed by DOE–GJO, provides access annually, or as needed, to the Grand Junction Disposal Cell for emplacement of contaminated materials and debris from within the City of Grand Junction and other approved sites, such as the DOE–GJO site. A total of 209 truckloads of GJO debris and materials were hauled to the Grand Junction Disposal Cell last summer. These truckloads contained approximately 4,000 cubic yards of contaminated debris and soil from the demolition of Buildings 7A and 62, the fanhouse, off-site calibration models, and other GJO Remedial Action Project remediation projects conducted in fiscal year 2000.

Building 18

In late July, DOE–GJO determined that Building 18 should be demolished in preparation for the transfer of this area to the U.S. Army Reserve; the Reserve did not want the building. In recent years, this building served as the GJO training facility and provided office space for the U.S. Army Reserve. Abatement of asbestos-containing acoustical material that had been sprayed onto all the ceiling surfaces in the building was required before the building could be demolished. Demolition of Building 18 immediately followed abatement activities and was completed at the end of September. All abatement and demolition debris was hauled to the Mesa County Landfill.



Building 18 at the Grand Junction Office was demolished in preparation for transfer of land to the U.S. Army Reserve. The demolition was completed as part of the Grand Junction Remedial Action Project.

The completion of these two demolitions essentially closed out the GJO Remedial Action Project. Future related activities at the DOE–GJO facility will be administered by the Long-Term Surveillance and Maintenance Program.

"I am very pleased with the outcome of these final projects," said Bob Hughes, former Project Manager for the GJO Remedial Action Project for contractor *WASTREN.* "Our workforce has maintained its high level of productivity and attention to safety." Donna Bergman-Tabbert, DOE–GJO Manager, recognized the GJO Remedial Action Project personnel at a special meeting in September, saying, "The scope of the GJO Remedial Action Project has changed constantly, but you have always responded promptly to the changes and continued to accomplish the work. I can't thank you enough for the great job you've done."

For more information on the GJO Remedial Action Project, contact Larry Arnold, DOE–GJO Project Manager, at (970) 248–6073.❖

This abandoned uranium mine site in western Colorado presented a hazard to humans, livestock, and wildlife in 1994. Uranium Lease Management Program personnel at the U.S. Department of Energy Grand Junction Office began reclamation efforts in 1995 at 161 of these abandoned sites.

ULM Program $aves Big Buck$

During the last 8 fiscal years, the Uranium Lease Management (ULM) Program reclaimed 161 abandoned uranium mine sites located on lease tracts administered by the U.S. Department of Energy Grand Junction Office (DOE–GJO). In this reclamation process, the ULM Program saved DOE more than $1 million.

In 1994, as the ULM Program at DOE–GJO prepared to initiate reclamation activities at legacy mine sites, no standards or guidelines existed with respect to abandoned uranium mine-site reclamation. These legacy mine sites were the result of the U.S. Atomic Energy Commission's Leasing Program (circa 1948–1962). "GJO was basically forging into uncharted territory," said Ed Cotter, ULM Project Manager for DOE–GJO contractor MACTEC Environmental Restoration Services. GJO developed a fourfold, best-management reclamation strategy:

- Eliminate physical safety hazards, including mine openings/portals and surface pits/trenches that contain vertical drop-offs greater than 3 feet.
- Recontour the mine-waste-rock dumps and other areas of disturbance to blend in with the natural topography surrounding the site, while at the same time allow as much existing vegetation to remain undisturbed as possible.
- Redirect storm water away from the immediate areas where mine openings have been closed to eliminate the possibility of water flow and erosion into the mine workings and to collect, contain, and control storm water that contacts the site.
- Decrease, as practicable, the potential for the general public's exposure to radiological materials.

In fiscal year 1995, ULM Program personnel began a 3-year task to compile a comprehensive inventory of legacy mine sites and associated features. The number of sites to be reclaimed more than doubled from an earlier estimate. The cost estimate for the newly defined reclamation work scope combined with the estimate for the fiscal year 1994 reclamation brought the total estimated reclamation cost associated with DOE's legacy mine sites to roughly $2.38 million.

Resourceful Solutions

During this 3-year period, program personnel devised several ways to decrease reclamation costs. They redefined the procurement process; subsequent Requests for Proposal solicited a specific crew size (operators and/or laborers) and specific pieces of equipment (lubed, fueled, and maintained) for a specific time period (start date defined by GJO). This new procurement technique minimized the need for detailed engineering drawings and calculations, thus shortening the procurement cycle from 45 days (typical) to less than 2 weeks. The key to success in this

procurement process was careful, accurate planning and scheduling of reclamation projects and prudent qualified project oversight.

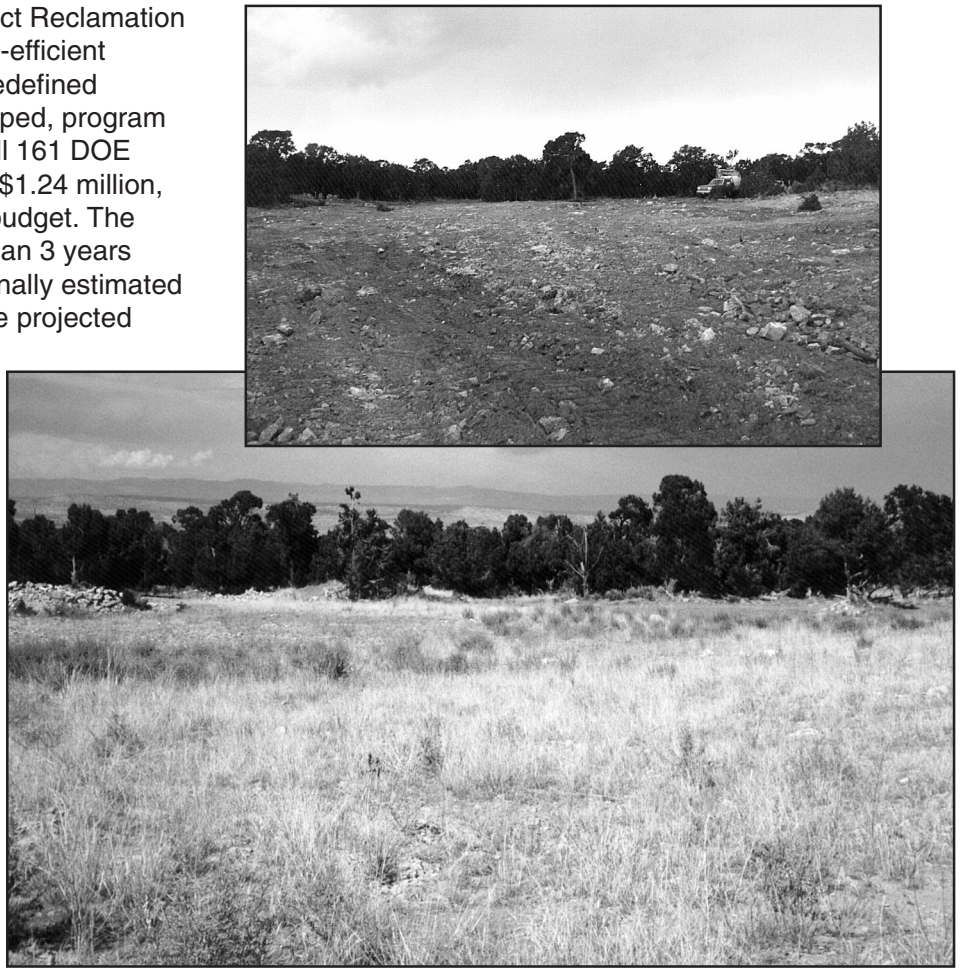
Several innovative reclamation technologies were incorporated into the ULM Program's reclamation arsenal: pocking steeper slopes to minimize erosion and enhance revegetation efforts; excavating sediments from area stock ponds for use as topsoil materials; using polyurethane foam for drill hole, vent hole, and portal closures; using weather balloons as forms for polyurethane foam closures; and using holistic methods (intense cattle grazing) for slopes too steep for conventional equipment.

In fiscal year 1999, GJO initiated negotiations with the ULM Program lease-holders to perform reclamation at legacy mine sites in lieu of making annual royalty payments. These negotiations were authorized by and conducted pursuant to Article XVI (Good Faith Negotiations) of the new Lease Agreements. The program negotiated similar terms in fiscal years 2000 and 2001. By negotiating with its leaseholders to perform reclamation in-lieu-of royalties, the ULM Program was able to complete $427,000 worth of direct reclamation work scope at virtually no cost (allocated reclamation funds) to DOE.

In fiscal year 2000, program personnel took another step to significantly reduce subcontractor procurement costs. Basic Ordering Agreements were competitively established with five subcontractors, whereby equipment and labor prices were fixed for a 1-year period with two 1-year negotiated extensions.

DOE–GJO completed its Lease Tract Reclamation subtask in May 2001. By using cost-efficient reclamation technologies and the redefined procurement technique they developed, program personnel successfully reclaimed all 161 DOE legacy mine sites for a total cost of $1.24 million, which was almost half the original budget. The work scope was completed more than 3 years ahead of schedule, which was originally estimated to be September 2004 based on the projected availability of allocated funding.

Reclamation work included the installation of nine bat gate/grate structures (to conserve critical bat habitat within the mine workings) and the excavation of a substantial volume of topsoil for redistribution over recontoured mine-waste-rock materials. Program personnel



In progress reclamation activities (top photo) at the mine site shown on page 6 resulted in vegetation and soil restoration (bottom photo) that closely resembles the natural state of the surrounding area.

typically identified additional reclamation work scope while field activities were being performed. In every case, this added work scope was also successfully completed at basically no additional cost to DOE.

Representatives from other federal and state agencies and the Navajo Nation that toured various mine sites reclaimed by GJO have recognized GJO as the leader in abandoned uranium mine-site reclamation. “The agencies were amazed at the amount, and quality, of work accomplished by GJO for the associated cost,” said Cotter.

Now that DOE’s legacy mine sites have been successfully reclaimed, the lands associated with the inactive lease tracts are eligible for restoration to the public domain under the administrative jurisdiction of the U.S. Bureau of Land Management (BLM).

Abandoned Mined Lands Program

GJO initiated the Abandoned Mined Lands Program in fiscal year 1999 to facilitate final reclamation of abandoned mine sites on non-DOE properties located within and immediately adjacent to the DOE lease tracts. The mission of the program is to assist other federal, state, and tribal agencies in the reclamation of abandoned mine sites located on lands that the respective agencies administer.

To promote GJO’s abandoned mine-site reclamation experience and technical expertise, DOE elected to complete a pilot reclamation project for BLM. The site selected was the Hawk Mines Complex located near Slick Rock, Colorado. The project was successful, and BLM subsequently requested GJO’s assistance in the reclamation of BLM’s abandoned uranium mine sites. An Interagency Agreement was executed in May 2000 between DOE–GJO and the BLM Colorado State Office, defining project roles and responsibilities for each agency, and BLM submitted the first of several project Statements of Work to GJO for completion. Through September 2001, GJO had completed eight reclamation projects for BLM.

Currently, GJO has BLM Statements of Work and funding to support two projects: the Yellowbird/Elizabeth Mines Complex Reclamation Project, located southeast of Gateway, Colorado, and the Tailholt/Full Moon/Northern Light Mines Complex Reclamation Project, located near Slick Rock, Colorado. Both projects are of significant size and will be completed in phases as funds are appropriated.

For more information about the ULM Program, contact Art Kleinrath, DOE Project Manager, at (970) 248–6037.❖

Long-Awaited Site Transition Finalized

Continued from page 3

building such that exposure could result in a 25 mrem/yr dose, presented a survey and sampling plan, and provided the results of the final status survey. The radiological data collected in the building showed that the residual radioactivity had been reduced to concentrations that were substantially below the established limit and were as low as reasonably achievable. After careful review of the documents, DOE concluded that Building 20 met the criteria and it was released from further radiological controls.

Radiologically contaminated materials are known to be present in the soils under Building 20 and one other building at the site that will continue to be occupied by DOE; both buildings will be remediated by DOE when operations in those buildings cease. Remediation of the radiologically contaminated surface water and groundwater is expected to be accomplished by natural flushing. In May 2000, DOE–GJO issued a final Environmental Assessment and a Finding of No Significant Impact for the transfer of the site to non-DOE ownership. DOE provided public notice of the transfer on March 25, 2001, in the local newspaper. DOE and the State of Colorado responded to public comments.

Request for Deferred Remediation

To manage the contamination that would remain after site transition, DOE submitted a Request for Deferred Remediation to the State of Colorado. The Governor of Colorado signed the deferral application on August 15, 2001, stating “I find the property suitable for transfer.” Obtaining this approval was one of the contingencies to the sales agreement. This is only the second such request to be approved by the State of Colorado and the first for DOE in the state.

Simultaneous with transfer of site ownership, DOE also signed a lease with the Riverview Technology Corporation for space at the GJO site for its ongoing missions. DOE is leasing six buildings at a variable cost per square foot. Chris Launer, Acting Chair of the Riverview Technology Corporation, said, “With this transfer, the community has gained a tremendous asset, not only in the retention of a valuable workforce, but in property that can be reused by other entities that benefit the community. As the new site owners, we look forward to continuing our relationship with DOE.”

Other Site Occupants

The Western Colorado Business Development Corporation signed a lease with DOE in 1999 for 45,000 square feet in several buildings on the site for its Small Business Incubator Program. Although that lease terminated when the site transferred, the Incubator remains as a tenant and will manage the site for the Riverview Technology Corporation. The Riverview Technology Corporation intends to lease the remaining building space to other entities for a mixture of commercial, industrial, and office uses. The U.S. Army Reserve currently occupies Building 7 and uses acreage at the north end of the site for storage and maintenance of vehicles. DOE transferred approximately 8 acres at the site, including Building 7, to the Reserve on November 20, 2001.

Changes at the site, some obvious and some more subtle, came with new ownership. All unnecessary personal property was transferred to the Riverview Technology Corporation along with the real property (land and buildings). In August 2001, employees began using badge card readers to enter buildings to be leased by DOE. “For the most part, other than a few changes in procedures, the new ownership probably won’t directly affect employees,” said Bergman-Tabbert. “We still have our missions to perform, we just don’t own and manage the property we occupy anymore.”❖

Fourth Annual Long-Term Looks at "The Future

The Long-Term Stewardship Workshop offered many opportunities for participation in breakout sessions and interactive discussion groups to share lessons learned and to ask questions.

More than 300 individuals participated in the fourth annual Long-Term Stewardship Workshop July 30 through August 2, 2001, in Grand Junction, Colorado, to share ideas and discuss issues associated with planning for long-term stewardship. Workshop participants represented local, state, federal, and tribal governments; contractors; stakeholder groups; regulatory agencies; private industry; academia; and Hungary.

Presentations on planning in general and lessons learned from other sites and agencies were followed by question-and-answer sessions to generate discussion. The presentations addressed the importance and timing of long-term stewardship planning, who should be involved in planning, and the elements of successful planning.

Through the cooperative efforts of the U.S. Department of Energy (DOE) Headquarters Office of Long-Term Stewardship, the DOE Idaho Operations Office, and the DOE Grand Junction Office (GJO), the workshop took on a different focus from past years. In small breakout sessions, participant groups applied the presented information and the DOE draft guidance to the development of a long-term stewardship technical plan outline for fictitious sites. The interactive exchange resulted in valuable feedback for long-term stewardship managers.

Art Kleinrath, DOE–GJO Long-Term Surveillance and Maintenance (LTSM) Program Manager, presented DOE Office of Long-Term Stewardship Director David Geiser with a summary of the workshop breakout session results. "I couldn't be more pleased with the outcome of the workshop," said Geiser. "When you have this many people gathered together all focusing on the same topic of interest, it is really important to take full advantage of the situation and get as much out of it as possible."

Comments on the DOE draft guidance document centered around six major themes. Numerous other topics were suggested as additions to the guidance. The results of the breakout sessions and the summary of comments are available on the Internet at **www.gjo.doe.gov/programs/ltsm/general/events/01worksh/breakout.html**. The breakout session discussions will hopefully prove helpful to sites that are preparing their own long-term stewardship plans.

Other highlights of the workshop include a western barbeque on the nearby scenic Colorado National Monument and a luncheon featuring keynote speakers Trent Schafer, Monticello, Utah, City Administrator, and Jim Fiore, DOE Deputy Assistant Secretary for Site Closure. Schafer was closely involved in the uranium mill tailings Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup project in Monticello. He praised DOE–GJO on its work with the City of Monticello and Site Specific Advisory Board to address the needs

Stewardship Workshop Through the Past"

and interests of the local citizens, not only during the cleanup phase but also in negotiating a land transfer that was beneficial to all parties.

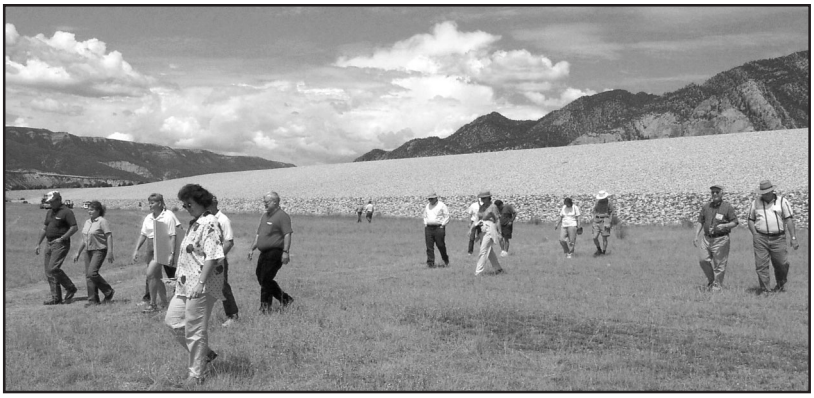
Fiore talked about stewardship planning, decision making, and communication—key factors, he felt, in any successful environmental management activity. He discussed how similar sites could rightly receive completely different cleanups and, therefore, require a completely different approach to stewardship. "Looking at the different types of sites, and their stewardship requirements, leads us back again to the purpose of this workshop," said Fiore. "We clearly need to *plan* to ensure our stewardship activities will meet each need." He also stressed the importance of leaving records that will be meaningful and helpful to our descendants.

The ladybug signs on the tables signify a specific breakout session during which participants formulated a long-term stewardship plan for a fictional disposal site, taking into consideration specific characteristics of the site.

Beverly Cook, former DOE Manager of the Idaho Operations Office, and Gerald Boyd, Deputy Assistant Secretary, DOE Office of Science and Technology, were special guest speakers. Cook commented on the value of having input from agencies and entities outside DOE because the issues of long-term stewardship involve a variety of interests. Boyd informed the participants that the change in administration would most likely bring a subsequent reorganization of the Office of Long-Term Stewardship. However, he felt that the function of long-term stewardship was more important than where it resides and he urged agreement within DOE on the principles, policies, and funding of long-term stewardship.

On Thursday, August 2, an optional field trip to the Grand Junction and Rifle Disposal Cells in Colorado was offered. Along the tour, participants viewed some of the more notable properties in Grand Junction that were remediated during the Uranium Mill Tailings Remedial Action Project and learned some interesting history from tour guide, John Elmer, MACTEC Environmental Restoration Services Project Manager. The timing of the tour allowed the participants to see the Grand Junction Disposal Cell in operation accepting contaminated materials from the temporary storage facility in Grand Junction. Most of the participants had never

Continued on page 13



How large is a uranium mill tailings disposal cell? Workshop attendees gained first-hand knowledge with a field trip to the Rifle Disposal Site near Rifle, Colorado. The disposal cell occupies 71 acres and contains 4,967,451 dry tons of contaminated material.

GJO Shares Its Success Stories

Continued from page 2

making a final decision by the end of 2001, with the new contractor beginning work by early 2002.

Another major success story was the recent 4th annual Long-Term Stewardship Workshop. DOE hosted this year's workshop in Grand Junction at the end of July and drew our biggest audience yet, breaking the 300 mark.

A change in the workshop format was generally met with enthusiasm and approval. We are already making plans for next year's workshop, which will now hopefully change to a conference. Information on workshop dates, location, registration, and program will be posted on the Internet at **www.gjo.doe.gov/programs/ltsm/general/events**. A recap of the 2001 workshop begins on page 10.

Other good news GJO has to report is the work that has begun on the Moab, Utah, Site Project. On October 30, 2000, former President Clinton signed the Floyd D. Spence Defense Authorization Act for Fiscal Year 2001, which assigned responsibility to DOE for determining the most appropriate long-term remediation approach for the Moab Site (also known as the Atlas Site). DOE delegated responsibility for the Moab Site, the former location of a uranium-ore processing mill and a tailings pile, to GJO.

The act requires that a remediation plan be prepared to evaluate "the costs, benefits, and risks associated with various remediation alternatives, including removal or treatment of radioactive or other hazardous materials at the site, groundwater restoration, and long-term management of residual contaminants." The site encompasses approximately 400 acres, including a tailings pile that covers 130 acres and contains an estimated 10.5 million tons of uranium mill tailings. An additional 0.8 million tons of surface soils and subpile soils will also require removal to meet radiological cleanup standards.

Initially no funding accompanied this transfer of responsibility. However, Congress approved a supplemental budget appropriation in July 2001 that allocated $1.95 million to the Moab Site Project. This funding was used to complete the title transfer to DOE, fund the National Academy of Sciences review of remediation alternatives, and finalize the plan for remediation.

The final title transfer of the Moab property from the Atlas Mill Site Trustee to DOE was completed October 25, 2001. A draft *Moab Site Project Preliminary Plan for Remediation* was forwarded to the National Academy of Sciences on October 30, 2001. The remediation plan describes current site knowledge, available options for remediation, and the anticipated selection criteria that will be used to determine the long-term proposed remedy.

In addition to the $1.95 million, $2 million is appropriated in fiscal year 2002, and under any remediation scenario, several initial actions will be initiated that are required to stabilize the Moab Site to protect the environment. These include

site maintenance, design of an interim groundwater corrective action to reduce the release of ammonia and other contaminants to the Colorado River, full characterization of site soils, implementation of radiation control procedures, and continued dewatering of the uranium mill tailings pile. Watch for future articles on this newest project for GJO.

Also included in this issue are articles on other GJO success stories, such as the award of two Long-Term Stewardship pilot projects to GJO, closeout of the GJO Remedial Action Project, and significant cost savings realized through the Uranium Lease Management Program.❖

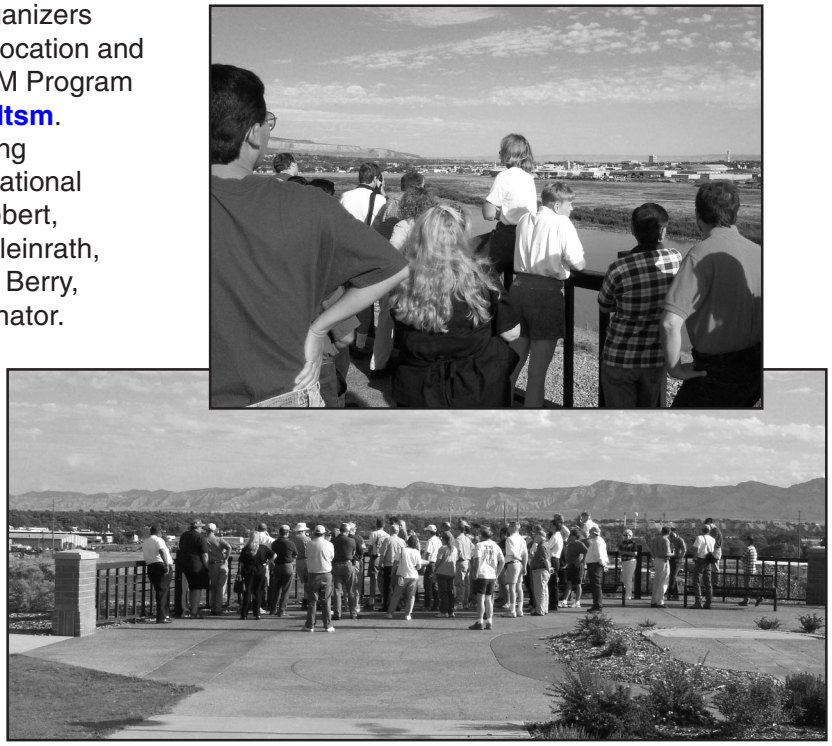
Donna Bergman-Tabbert, Manager
U.S. Department of Energy Grand Junction Office

Fourth Annual Long-Term Stewardship Workshop Looks at "The Future Through the Past"

Continued from page 11

seen a closed repository and were overwhelmed at the magnitude of the Rifle Disposal Cell.

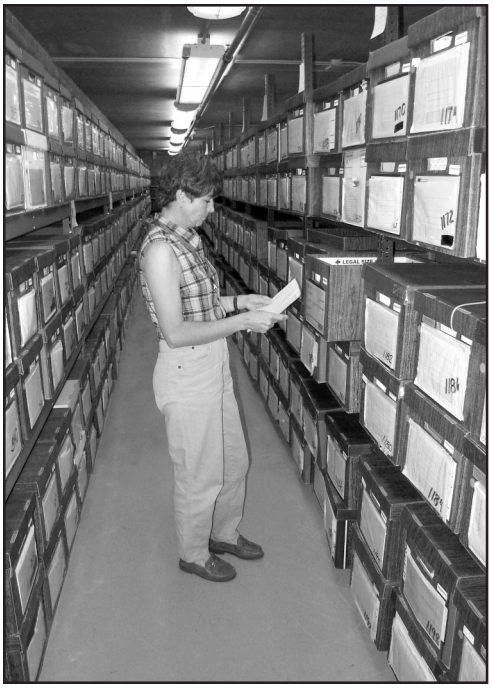
With this year's workshop deemed a success, organizers have turned their focus to next year's event. The location and date for the 2002 event will be posted on the LTSM Program Internet website at **www.gjo.doe.gov/programs/ltsm**. Through the establishment of a conference steering committee, DOE–GJO hopes to capture a more national perspective on stewardship. Donna Bergman-Tabbert, Manager, DOE–GJO, chairs the committee; Art Kleinrath, DOE–GJO, is the Executive Director, and Audrey Berry, DOE–GJO Public Affairs Specialist, is the Coordinator. The members of the committee are Chris Clayton, DOE Headquarters; Deborah Griswold, DOE Albuquerque Operations Office; Susan Heston, DOE Chicago Operations Office; Larry McEwen, DOE Oakland Operations Office; Patty Natoni, DOE Idaho Operations Office; Ralph Skinner, DOE Oak Ridge Operations Office; and Sue Smiley, DOE Ohio Field Office.Other goals are to provide additional opportunities for networking and personal communication, as well as maintain the event as an open forum for discussing and resolving issues of long-term stewardship.



An overlook location gave field trip participants an opportunity to view a completed remediation project at the former Climax uranium-ore processing millsite in Grand Junction, Colorado. This mill processed uranium ore for 19 years. A portion of the site is now a public park.

For more information about the Long-Term Stewardship Workshop or the LTSM Program, contact Art Kleinrath at (970) 248–6037.❖

Long-Term Stewardship Pilot Projects Approved



Long-term stewardship personnel and stakeholders rely on archived and active records to provide information about custodial sites. The Data/Records Access Pilot Project endeavors to broaden external access to these records by making them available on the Internet.

The national Long-Term Stewardship Program issued a call for pilot projects that would aid individual U.S. Department of Energy (DOE) sites, especially closure sites, in resolving barriers to transitioning to long-term stewardship and that would help resolve long-term stewardship implementation issues across the DOE complex.

In response to this call, the DOE Grand Junction Office (GJO) submitted two proposals in May 2001 that focused on information and data management. Twenty-one proposals were submitted and nine were selected. DOE–GJO received approval and funding to proceed with both its projects: the Data/Records Access for Stakeholders Pilot Project and the Geographical Information System Pilot Project.

Data/Records Access for Stakeholders Pilot Project

The GJO Long-Term Stewardship Data/Records Access for Stakeholders Pilot Project and two other pilot projects that focus on information management submitted by other DOE offices were selected for funding. All three projects are being coordinated through the DOE Idaho Operations Office to realize the maximum benefit to the sites and to the national Long-Term Stewardship Program.

The Data/Records Access Project has three objectives. The first objective is to develop external access to select portions of the DOE–GJO Records Log System, to create a new master long-term stewardship website to link to other site document systems, and to establish a link from the DOE Headquarters web page to the long-term stewardship website for stewardship information. The second objective is to identify hardcopy records and documents that require scanning and formatting for placement on this new long-term stewardship website. The second objective also involves evaluating off-the-shelf records management applications to determine whether to enhance the GJO's current Records Log System or procure a new one. The third objective is to implement an Enterprise Information Portal for long-term stewardship documents across the DOE complex that provides a common, customizable user interface and search capability.

Key elements of a comprehensive stewardship program are storage, retrieval, and dissemination of information. Although the current GJO Records Log System and associated database provide a practical solution to assimilating and managing the records collections of numerous stewardship sites, the database does not provide search and access capabilities to other stakeholders (e.g., local government, other agencies, other DOE offices, and the public). The responsibility of the stewardship program to disseminate and share information has been identified in several key documents, such as *Long-Term Institutional Management of U.S. Department of Energy Legacy Waste Sites*, *The Role of Local Government in Long-Term Stewardship at DOE Facilities*, and *Managing Data for Long-Term Stewardship*.

Records databases at DOE sites are full of information, but getting value and visibility from them continues to be a challenge. Independent development of

records databases has resulted in a variety of individual, or "stovepipe," data, systems, and processes.

Tying these stovepipes together into a cohesive framework is the job of the Enterprise Information Portal. An Enterprise Information Portal interface is integrated because it provides a single point of entry to any piece of information, regardless of where it resides, as long as the file server it resides on has an Internet address. Information viewed through an Enterprise Information Portal interface is customized to match the role of the users. This feature saves users time and improves visibility of long-term stewardship information. The Enterprise Information Portal provides security by allowing users to see only the information that they are authorized to access.

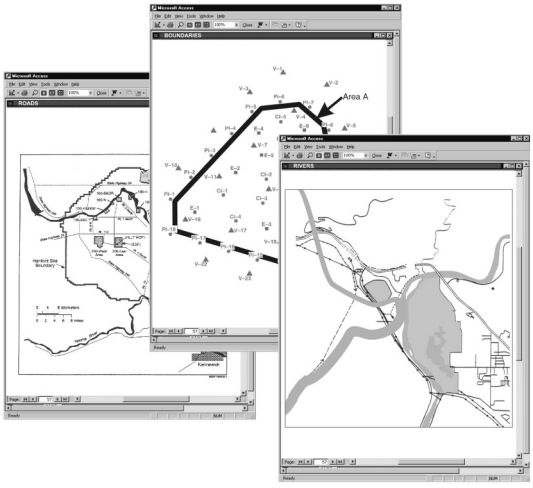
The two information systems pilot projects being developed by other DOE sites are

- *Long-Term Stewardship—Information System Stewardship*, sponsored by the DOE Nevada Operations Office. The Nevada Operations Office Stewardship Information System has five key objectives:
  - — Collect a wide array of information (i.e., data, records, and documents) critical to stewardship implementation in one, easy-to-access database and add new information as it is generated.
  - — Create a system that can be updated over time as regulatory agreements change, new technologies are developed, and data requirements and needs evolve.
  - — Create a system that is easily replicable and can be customized by DOE Field Offices and DOE laboratories for use at their respective sites.
  - — Provide a compact package of data for transfer to the Program Secretarial Office or other landlord (e.g., the National Nuclear Security Administration, a state, or federal agency) upon completion of environmental management projects.
  - — Create a database to retrieve information more efficiently on data issues to address calls from DOE Headquarters, state regulators, and stakeholders.
- *SMART (Stewardship Management Archival/Retrieval Tool)*, sponsored by the DOE Oak Ridge Operations Office. The primary objective of SMART is to have a user-friendly, intuitive, web-based information system that contains comprehensive stewardship data. Data in the SMART system will be added in phases. SMART will serve as a unifying tool, bringing site stewards, regulators, citizens, and other stakeholders together to better understand and address stewardship issues and needs.

Geographical Information System Pilot Project

The other DOE–GJO pilot project that was selected is the development of a web-enabled Geographical Information System (GIS) for sites currently managed by the DOE–GJO Long-Term Surveillance and Maintenance (LTSM) Program. This Internet-based GIS

Continued on page 17



An Internet-based Geographical Information System will allow stakeholders to access technical data about sites in the Long-Term Surveillance and Maintenance Program and view the information on site maps.

GJO Employees and Their Children Learn the Importance of Safety

Continued from page 20 (back cover)

Emphasis on Safety

The GJO Safety Committee is a joint contractor committee consisting of nonmanagerial *WASTREN, Inc.,* and MACTEC Environmental Restoration Services (ERS) employees who meet on a regular basis to discuss safety and health issues affecting all GJO employees and who make recommendations for enhanced performance. "The purpose of the Safety Committee is to provide a means for employee participation in the safety and health program by ensuring employee concerns and suggestions are communicated to the appropriate management and are followed up by the committee representatives," says Vera Creagar, Safety Committee Chairperson. The Safety Committee is self-funded with the proceeds from site vending machines.

The committee's accomplishments so far this year include

- Arranged for cleanup of roadsides near the GJO facility by the City of Grand Junction for walkers and runners.
- Updated the emergency signals poster.
- Donated $1,800 to the Mesa County Sheriff's Department and the Seniors and Law-Enforcement Together (SALT) Committee for the Safety Bicycle Rodeo held May 19, 2001. The money was used to purchase bike helmets and safety stickers for local youth.
- Donated $550 to "Take Our Children To Work Day."
- Invited a guest speaker from a local construction company to speak to employees about truck traffic and safety at the GJO site.
- Recognized and rewarded six employees for their safe acts.

"The Safety Committee plans to continue to help make GJO a safe site for all employees," says Creagar.

A chance to "drive" construction equipment attracted youngsters visiting the Grand Junction Office during the annual "Take Our Children To Work Day."

Children Visit GJO Site

"Safety is a priority at the DOE–GJO" was the message hopefully conveyed to GJO employees' children in April during the site's annual "Take Our Children To Work Day." GJO expanded the national "Take Our Daughters To Work Day" to include sons of employees and more than 65 children of all ages visited the GJO site that day.

The GJO Safety Committee purchased "hard hats" that were personalized for the children, along with miscellaneous safety-related items. Children participated in a coloring contest that depicted safety scenes. Stops on a guided site tour emphasizing safety included a water safety demonstration, a vehicle safety display, and a visit with "Super Dan, the Safety Man." At the water-safety demonstration, the children learned some basic water safety techniques, such as wearing life jackets, swimming

with a buddy, and what to do if they see someone drowning or struggling in the water.

The Colorado Highway Patrol brought the "seatbelt convincer," which simulates what happens to a passenger in a 5-mile-per-hour impact who is wearing a seatbelt when the vehicle's airbag deploys. Because numerous GJO employees must drive government vehicles as part of their jobs, this topic seemed especially appropriate to address as part of the tour. "My favorite part was the seatbelt display because it showed how you can get thrown out of a car in an accident if you don't wear your seatbelt," said Melinda Rukavina, daughter of MACTEC–ERS Quality Assurance Manager Ardis Rukavina.

Super Dan, the Safety Man, talked to the younger kids about a variety of general safety issues, such as stranger danger, home safety (avoiding chemicals, prescriptions, and cleansers and not playing with knives or scissors), and fire safety (not playing with matches or lighters). The older children also visited the on-site Environmental Sciences Laboratory and the newly remodeled Sample Preparation Facility.

"We wanted our children to learn about the safety issues we deal with at work that are just as important as the ones at home," said Lisa Sharp, a buyer for *WASTREN* and a member of the GJO Safety Committee. The children also enjoyed a barbecue lunch at the site with their parents.❖

Super Dan, the Safety Man, emphasizes safe work tools and techniques to children wearing plastic "hard hats" during the "Take Our Children To Work Day" at the Grand Junction Office.

Long-Term Stewardship Pilot Projects Approved

Continued from page 15

will allow dynamical mapping and technical information display on a site-by-site basis. A displayed map may show information such as disposal cell boundaries, site boundaries, adjacent land ownership and use boundaries, rivers, roads, fences, topography, and contaminant plume information. The technical information associated with features on this map may include data such as well locations, well completion details, water levels, sampling and analysis information, and access agreement information.

Currently, map and technical information for stewardship sites is generally accessible only to LTSM Program personnel. Anticipated users of this web-based GIS include DOE, contractor staff members, the regulatory community, stakeholders, and the public.

Both DOE–GJO long-term surveillance pilot projects are scheduled to be completed by the end of fiscal year 2002. For more information about the GJO pilot projects, contact John Gilmore, DOE–GJO Project Manager, at (970) 248–6027.❖

Educational Outreach

Popsicle sticks and glue were transformed into mini solar-powered cars by students in the S.N.A.R.F. Camps sponsored by the U.S. Department of Energy Grand Junction Office.

Students Enhance Their Science Knowledge at S.N.A.R.F. Camps

This summer offered new challenges for approximately 175 local grade school students who attended the second annual S.N.A.R.F. Science Camps sponsored by the U.S. Department of Energy Grand Junction Office (DOE–GJO). The camps were held at a local elementary school.

S.N.A.R.F. stands for Science, Nature, Astronomy, Radiation, and Flight. The camps feature fast-paced, hands-on activities that explore several science areas, such as astronomy, radiation, chemistry, and computers. Camp activities are designed to encourage basic scientific reasoning skills along with group cooperation and to generate excitement about science topics that may not be covered in students' school curricula. One parent commented that for her son it was "the best summer camp he ever attended in terms of learning combined with fun."

A second S.N.A.R.F. Science Camp was added this year because of the overwhelming popularity of last year's debut camp. "We designed all new activities for this year's camps so the campers who came last year wouldn't see any repeats," said Mike Davis, Physics and Chemistry teacher at Fruita Monument High School, who is the camp director.

Four students from Fruita Monument High School were the camp counselors; they developed and led the camp activities. "I'm very impressed with the activities the counselors created," said Davis. "I think they made this year's camps even better than last year."

Using high school students as counselors has enhanced the experience for the campers. One parent wrote on the camp evaluation, "I really appreciate their efforts as a parent, they were good role models. My kids actually said they want to be counselors when they are in high school."

One of the counselors was Caleb Waugh, son of Jody Waugh, who works for DOE–GJO contractor MACTEC Environmental Restoration Services. Caleb developed one of the favorite camp activities, which was to create mini solar-powered cars using Popsicle sticks, an electric motor, solar cells, a battery, and the sun's energy. "When one student tried to plug a solar car into an outlet, creating a puff of smoke, Caleb quickly realized that teaching science involves much more than knowing science," said his father. "Caleb enjoyed interacting with the students as much as he enjoyed creating the activity." Other popular activities were making "gak" (a putty-type substance) out of glue, Borax, and hot water; preparing homemade root beer; and creating egg-drop parachutes.

DOE–GJO coordinated use of the New Emerson School to conduct the camps with John McConnell, director of the Western Colorado Math and Science Center at the school. Camp activities complemented but do not overlap what the center has to offer. “DOE advocated conducting the camps at New Emerson as a great tie-in to the wonderful interactive displays available at the Math and Science Center that allow campers an opportunity to learn more about the center’s capabilities,” said Jon Sink, Radiological Assistance Program Team Lead for DOE–GJO.

One of the center’s displays came from DOE–GJO. Last spring GJO installed a display at the Math and Science Center about the effects of radiation and its presence in everyday products. “We wanted to include an educational piece about radiation at the center for visitors to gain a better understanding of radiation and eliminate some of the myths surrounding it,” said Dan Dow, a Safety and Health technician for DOE–GJO contractor *WASTREN, Inc.,* and a member of the Radiological Assistance Program team at GJO.❖

Brian Stagg (top photo) and Caleb Waugh (bottom photo), students at Fruita Monument High School, Fruita, Colorado, served as camp counselors at the S.N.A.R.F. Camps and developed camp activities, such as the solar-powered cars.

GJO Employees and Their Children Learn the Importance of Safety

A boat resting on grass is a safe place to learn about water safety. Ken Pill, a MACTEC Environmental Restoration Services employee, teaches children safety techniques during the "Take Our Children To Work Day."

The Grand Junction Office (GJO) Safety Committee coordinated activities throughout June, designated as National Safety Month by the National Safety Council, that focused on skin care, defensive driving, outdoor safety, and workplace safety.

The committee posted a daily safety tip on the email bulletin board network pertaining to that week's safety topic. The committee also handed out safety-related goodies during the month, such as packets of sunscreen, bookmarks listing the safety committee's roster, key chains displaying a safety message, and waterproof safety kits. In addition, the GJO Training organization posted extensive defensive driving information on the U.S. Department of Energy (DOE) GJO website that includes maps, directions, and potential road hazards for routes often used by GJO employees on business or personal travel.

Continued on page 16

U.S. Department of Energy
Grand Junction Office
2597 B¾ Road
Grand Junction, CO 81503

Mailing Label